

REMARKS/ARGUMENTS

This is in response to the Office Action dated November 13, 2008. Claims 1-22 are pending. Claims 1-22 stand rejected in the outstanding Office Action. Claims 1, 14 and 15 have been amended.

The rejection of independent claims 1 and 14-15 as allegedly being anticipated under 35 U.S.C. § 102(b) by Okumura (US 2002/0191128) is respectfully traversed. Okumura fails to disclose or even remotely suggest each and every limitation set forth in the claims. Anticipation requires that “each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference”, *Verdegaal Bro. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987) (MPEP § 2131).

Amended claims 1 and 14-15 now recite “wherein the drive voltage is such that the transmission intensity at oblique viewing angle is increased to strengthen excess brightness and grayscale inversion, achieving narrow viewing angle characteristics, and the transmission intensity at oblique viewing angle is decreased to weaken the excess brightness and grayscale inversion, achieving wide viewing angle characteristics”. Support for the amendment can be found, for example, in p. 4, line 20 to p. 5, line 4 of the instant specification. Okumura fails to teach or suggest this feature.

Okumura discloses a LCD device, which can be switched between wide viewing angle mode and narrow viewing angle mode. In one embodiment, this switching is performed by turning the voltage applied across a layer 20 of liquid crystal particles 20b on and off (Figs. 9A, 9B and [0103], [0174]).

With the above amendment, the drive voltage dependence on the viewing angle characteristics is specified. Mosier was cited for the limitations regarding the specifics of the

driving voltage (e.g., claims 2-5). However, Mosier simply teaches the form of the driving voltage e.g., ramp used for gray scale voltage (see Figs. 16 and 17). The section in Mosier (col. 25, lines 7-20) cited by the Examiner as allegedly teaching the driving voltage specifics teaches that the slope of the voltage ramp can change. However, Mosier is completely silent as to selectively strengthening or weakening excess brightness and grayscale inversion to achieve narrow or wide viewing angle characteristics.

Okumura discloses an LCD device which can be switched between wide viewing angle characteristics and narrow viewing angle characteristics.

However, the claimed LCD device is different from Okumura's device in the following aspect. Okumura controls a viewing angle of light from the LCD device by using a viewing angle control panel provided separately from the LCD device, without switching viewing angle characteristics of the LCD device per se, whereas the claimed LCD device switches viewing angle characteristics of the LCD device per se, by changing the capability of the LCD device to express contrast and grayscale.

Specifically, in Okumura's device, viewing angle characteristics of the LCD device are switched by using the viewing angle control panel provided separately from the LCD device. Okumura discloses that the viewing angle control panel is realized by either a light-scattering film for scattering light at an appropriate angle, or by a polymer dispersed liquid crystal 20. In the case where the light-scattering film is used as the viewing angle control panel 8, the viewing angle control panel 8 is provided so as to be removable from the LCD device, and the viewing angle characteristics of the LCD device are switched by replacing the viewing angle control panel 8 with another viewing angle control panel 8 having different viewing angle characteristics. When the polymer dispersed liquid crystal 20 is used as a viewing angle

characteristics panel, the viewing angle characteristics of the LCD are switched by changing a voltage applied to the polymer dispersed liquid crystal 20. Thus, Okumura does not switch the viewing angle characteristics of the LCD device per se.

In contrast, the claimed LCD device viewing angle characteristics (between wide viewing angle characteristics and narrow viewing angle characteristics) on a display screen, by changing the capability of the LCD device to express contrast and grayscale. In so doing, the claimed device takes advantage of excess brightness on the lower end of grayscale (on the side of black display) at the oblique viewing angle, and grayscale degradation (in a severe case, grayscale inversion) on the higher end of grayscale (on the side of white display) at the oblique viewing angle, which are demerits of liquid crystal displays operating in the vertically aligned mode. Thus, the claimed LCD device switches the viewing angle characteristics of the LCD device per se.

For the above reasons, claims 1, 14 and 15 are allowable.

It is respectfully requested that the rejection of claims 2-13, 16-22, each one being dependent from claim 1 or 15, also be withdrawn.

In view of the foregoing and other considerations, all claims are deemed in condition for allowance. A formal indication of allowability is earnestly solicited.

The Commissioner is authorized to charge the undersigned's deposit account #14-1140 in whatever amount is necessary for entry of these papers and the continued pendency of the captioned application.

KUBO, M.
Appl. No. 10/811,306

Should the Examiner feel that an interview with the undersigned would facilitate allowance of this application, the Examiner is encouraged to contact the undersigned.

Respectfully submitted,

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